were extracted from the RELY trial; utilities were derived from the literature. Costs for medications and procedures were obtained from official government databases, all costs were in 2014 Colombian pesos (1 USD = 2000.33 COP). Annual discount rate was 5% and we used a life time horizon (close to 20 years, on average). Cost-effectiveness threshold was 3 times per capita GDP (around USD 22,500). **RESULTS:** Compared with warfarin, patients treated with dabigatran 150 and 110 mg gained, on average 0.37 and 0.23 life-years, respectively, or 0.38 and 0.25 QALYs. The ICER for dabigatran 150 mg was USD 13,248 per QALY, and for dabigatran 110 mg was 23,621 per QALY. **CONCLUSIONS:** Dabigatran 150, compared with warfarin, the standard therapy, is cost-effective for ambulatory treatment of patients with non valvular AF. Dabigatran 110 ICER is discretely over the threshold (around 1000 USD).

PCV66

## ECONOMIC EVALUATION OF DABIGATRAN ETEXILATE VERSUS WARFARIN, RIVAROXABAN AND APIXABAN IN STROKE PREVENTION IN ATRIAL FIBRILATION

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**OBJECTIVES:** To determine the economic value of dabigatran for stroke prevention in atrial fibrillation (SPAF) compared to other reimbursed oral anticoagulants warfarin, rivaroxaban and apixaban from a perspective of Mexican public institutions. **METHODS:** A Markov disease model with three month cycles length was developed. A number of clinically relevant events, including acute thromboembolic and bleeding events, as well as long-term consequences such as stroke, intracranial hemorrhage and acute myocardial infarction, were followed in the model within the lifetime horizon (mean 10 years from diagnosis for Mexican patients). Identical hypothetical cohorts of patients entered the model, following a disease background of atrial fibrillation (2500 simulations per treatment arm). Published results of head to head clinical trials or relative efficacy derived in network meta-analysis and indirect comparisons were used to populate the model. Public institutional direct medical costs (2014 purchases and price tabulators) where retrieved to adopt the national health system perspective. Model outputs included total costs, event rates and life-years gained. **RESULTS:** Mean life-years saved for dabigatran, apixaban, rivaroxaban and warfarin were 69.435, 69.219, 68.737 and 68.373 respectively. Estimated cost of treatment for dabigatran, warfarin, rivaroxaban and apixaban were 110,942 USD, 108,757 USD, 124,718 USD and 112,373 USD, respectively. ICER showed that dabigatran is a cost-saving alternative versus rivaroxaban and apixaban, and a cost-effective one versus warfarin (defined by a one GDP per capita threshold in the country). These results where robust to changes in discount rates. **CONCLUSIONS:** From a perspective of Mexican public institutions, the treatment with dabigatran was found to be cost-effective when compared with warfarin and economically dominant versus rivaroxaban and apixaban as it resulted in highest projected life years gained at lower costs.

PCV67

## COST-EFFECTIVENESS ANALYSIS OF SIMVASTATIN ATORVASTATIN AND ATORVASTATIN-EZETIMIBE COMBINATION AMONG PATIENTS WITH DIABETES MELLITUS OR CARDIOVASCULAR DISEASE IN GENERAL PRACTICE

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**OBJECTIVES:** Some high-risk CHD patients have poor outcomes with statin therapy and need to use combination regimens. The combination regimens have not been widely found in cost-effectiveness study. Therefore, this study aimed to analyze the cost-effectiveness of using Simvastatin, Atorvastatin, and Atorvastatin-Ezetimibe combination among high-risk CHD outpatients. **METHODS:** A cross-sectional retrospective study for 12 months (April 1, 2013 to April 1, 2014) in high-risk CHD outpatients was performed at the Chandrubeksa Hospital Medical Department of the Royal Thai Air Force, Nakhon Pathom, Thailand. The incremental cost-effectiveness ratio (ICER) was determined for cost-effectiveness analysis. The direct medical costs were computed by micro-costing method (Reference price in 2014). The effectiveness outcomes were the percentage differences in LDL-C reduction and the proportion of patients achieving treatment goals (Standard goal (LDL-C < 100 mg/dL) and Aggressive goal (LDL-C < 70 mg/dL)). The cost-effectiveness was concerned on the provider perspective. **RESULTS:** There were differences of the direct medical costs between three groups (median ± IQR: 517 ± 149.7, 3,910.4 ± 3,326.5, 13,733.7 ± 3,350.0; p 0.0001, respectively). Simvastatin regimen had the lowest percentage differences in LDL-C reduction when compared to other groups (mean ± SD ; -20.1 ± 30.1, -28.3 ± 24.2, -38.1 ± 17.1; p 0.0001, respectively). Atorvastatin regimen provide the best cost-effectiveness (ICER = 346.4 THB) by using the proportion achieved standard treatment goal, while Atorvastatin-Ezetimibe combination was dominated. In the case of the aggressive treatment goal showed that Atorvastatin-Ezetimibe combination regimens provided the most cost-effectiveness (ICER 437.7 THB and 1,189.8 THB, respectively). **CONCLUSIONS:** Comparison treatment with Simvastatin, Atorvastatin and Atorvastatin-Ezetimibe combination among high-risk CHD outpatients showed that Atorvastatin was more effectiveness and less costly than Atorvastatin-Ezetimibe combination in term of standard treatment goal. While Atorvastatin-Ezetimibe combination was an interesting option when aggressive treatment goal was used.

PCV68

## CLOPIDOGREL VERSUS ASPIRIN IN PATIENTS WITH ATHEROTHROMBOSIS: A CAPRIE-BASED ECONOMIC ANALYSIS IN A HEALTH RESOURCE LIMITED SETTING

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**OBJECTIVES:** To explore the cost-effectiveness of clopidogrel as secondary prevention in patients with a recent ischemic stroke (IS), or established peripheral arterial disease (PAD) compared with aspirin in China. **METHODS:** A discrete event simulation was developed to evaluate the economic implications of secondary prevention with clopidogrel or aspirin, which are indicated for a patient with a recent MI, recent IS or established PAD. All available evidences were derived from clinical studies. Costs from Chinese health care perspective in 2013 US dollars and quality-adjusted life years (QALYs) were projected over a patient's lifetime. Uncertainties were addressed using sensitivity analyses. **RESULTS:** Compared with aspirin, clopidogrel yielded marginal life expectancy by 0.46 and 0.21 QALYs at an incremental cost-effectiveness ratio of $5,246 and $9,890 per QALY in patients with a recent IS and PAD, respectively. One-way sensitivity analyses showed evaluation for patients with PAD and a recent IS was robust except the parameter of patient age. For the willingness to pay for $19,877 per QALY gained, clopidogrel intervention had a probability of 90% and 68% of being cost-effective for IS and PAD subgroups in comparison with aspirin, respectively. **CONCLUSIONS:** The analysis suggests that clopidogrel for the secondary prevention is cost effective for patients with either PAD or a recent IS in the Chinese setting in comparison with aspirin.

PCV69

## COST-EFFECTIVENESS OF RIOCIGUAT FOR TREATMENT OF PATIENTS WITH INOPERABLE OR POST-OPERATIVE RECURRENT/PERSISTENT CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION (CTEPH) IN TURKEY

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**OBJECTIVES:** Riociguat is the first product proven to improve health status in CTEPH patients. The objective of this study is to evaluate the cost-effectiveness of riociguat for patients with inoperable CTEPH or post-operative recurrent/persistent CTEPH in Turkey. **METHODS:** A Markov model taking transitions of patients between functional classes and death state as core was adapted to Turkish setting. Turkish payer's perspective was taken and time-horizon was set as patient's lifetime (maximum 30 years) broken into four-month cycles. Riociguat was compared to placebo and common off-label treatments within the model. Essential clinical inputs were derived from CHEST-1 and CHEST-2 trials and local resource-utilization data were conducted through an expert panel. The incremental cost-effectiveness ratios (ICER) were calculated per life-years (LYs) gained and sensitivity of the results was analyzed for all comparators and placebo in terms of key inputs. All costs were calculated in Turkish Liras (TL) and converted to USD using TL/USD currency rate as 2.1 (mid-2014). **RESULTS:** Total cost of riociguat-treated patients is 1,558, 7,342 and 59,706 USD higher compared to bosentan, ambrisentan and sildenafil respectively and 74,227 USD lower compared to iloprost. Besides, riociguat is associated with increments of 1.0034, 1.0878, 1.8174 and 1.8872 LYs compared to bosentan, ambrisentan, iloprost, sildenafil and placebo respectively. The ICER of riociguat per LYs gained compared to bosentan, ambrisentan, sildenafil and placebo were determined as 1,553 USD, 6,750 USD, 31,638 USD and 39,553 USD correspondingly. Model is sensitive only to the changes in "the starting age of the disease", yet not to an extent to affect the final results. **CONCLUSIONS:** Riociguat is cost-effective for CTEPH treatment compared to bosentan, ambrisentan, sildenafil and placebo with ICER values below the willingness-to-pay threshold (3-times GDP per capita −32,346 USD) for Turkey. Furthermore, riociguat is pharmacoeconomically dominant to iloprost with lower costs and higher clinical effectiveness.

PCV70

## COMPARATIVE COST-EFFECTIVENESS ANALYSIS OF CATHETER DIRECTED THROMBOLISYS WITH UROKINASE AND ALTEPLASE FOR TREATMENT OF ACUTE PERIPHERAL ARTERY DISEASE

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**OBJECTIVES:** The objective of this study was to compare the efficacy, complications, and costs associated with urokinase versus alteplase for the catheter-directed treatment of acute peripheral artery disease (APAD). **METHODS:** The cost-effectiveness of catheter directed thrombolysis (CDT) with urokinase and alteplase for the treatment of APAD was compared using decision analysis. A literature-based decision model to evaluate cost-effectiveness was constructed. Successful treatment outcomes were defined as clot lysis with a subsequent 30-day survival post-treatment. Direct medical costs were assessed from the payer perspective in the Kazakhstan and analyzed using sensitivity analyses. A Monte Carlo analysis with 1000 patients was performed to obtain mean and incremental cost-effectiveness ratios (ICERs). **RESULTS:** The mean cost-effectiveness ratio was $148 463 per treatment success for CDT with urokinase and $220 052 for CDT with alteplase. The ICER for alteplase relative to urokinase was $211 573 per additional CDT treatment success. Approximately 75% of simulated cases indicated that alteplase was associated with increased costs and increased treatment success compared with urokinase. Also, when using alteplase higher risk of bleeding than with urokinase, this complication is a major factor limiting the using of CDT. Results of a post hoc sensitivity analysis indicated that dominance decreased to approximately 10% of cases only under the most strict criteria. **CONCLUSIONS:** Decision analysis found an ICER of $211 573 per additional CDT treatment success for alteplase relative to urokinase in the treatment of APAD from the perspective of the payer in the Kazakhstan. In about 75% of cases resulting from a Monte Carlo simulation, alteplase was associated with increased costs and slightly increased CDT treatment success compared with urokinase, although this finding was sensitive to the distributional assumptions made concerning certain costs in the model.